

Amendments to the Drawings:

The attached sheets 3 and 4 of the drawings includes changes to FIG. 3A and 4, as required in the Office Action. These sheets, which includes FIGS. 3A, 3B and 4, replace original sheets 3 and 4.

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Remarks:

This application has been reviewed carefully in view of the Office Action mailed February 10, 2005 ("the Office Action"). In the Office Action, the drawings were objected to under 37 C.F.R. 1.83(a), as allegedly not showing every feature of the invention specified in the claims.

Claims 1-4, 7-9, 14-15 and 20 were rejected under 35 U.S.C. § 102(e), as allegedly being anticipated by Smith, U.S. Patent Pub. 2002/0157931. Claims 1-4, 6, 14-18, 20, 22 and 23 were rejected 35 U.S.C. § 102(b), as allegedly being anticipated by Gilbert, U.S. Patent No. 6,357,011. Claims 5-6 and 10-15 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Smith, in view of Carson, U.S. Patent No. 6,842,668. Claims 16, 21 and 22 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Smith in view of Appleberg, U.S. Patent Pub. 2001/0040798. Claim 19 was rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Gilbert in view of Hunter, U.S. Patent No. 5,724,237. Claim 21 was rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Gilbert. Finally, Claims 24-32 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Tseng, U.S. Patent No. 5,631,536, in view of McKenszie, U.S. Patent No. 6,003,139, and further in view of Henze, U.S. Patent No. 5,926,004.

Some of the claims have been amended to more clearly define the invention, as discussed below. Additionally, some of the claims have been amended to improve clarity and/or phraseology. These amendments do not add new matter and do not relate to patentability.

New claims 33-42 have been added to the application, and do not contain new matter.

The above-described objections and rejections are addressed as follows:

1. DISCUSSION OF THE INVENTION

Before specifically addressing the objections and rejections, it will be helpful first to briefly summarize Applicants' invention. The invention resides in a charging system
5 capable of charging batteries, such as may be found in electric vehicles, without exceeding power limit requirements that may occur due to wiring limitations, power costs, and other typical limits, such as might be faced by an operator of electric vehicles.

A salient feature of the invention in its various forms is that it provides an
10 intelligent charging solution for users having a need to simultaneously charge a large number of vehicles having various charge requirements. In prior solutions, such vehicles would be hooked up to charging ports that typically have excess charging ability (name-plate rating) over that required by the particular battery to which it is attached. As a result, the maximum number of vehicles that could be charged was limited not by the actual
15 power used to charge the vehicles, but rather by the name-plate ratings of the charging ports used.

Under the present invention, the power may be actively regulated such that it is dispensed at levels below the name plate rating, using the additional power availability to
20 simultaneously charge other batteries. Moreover, if the actual battery power requirements are greater than the available power, the charging of selected batteries can be regulated to a reduced level to provide for maximum charge effectiveness for the total number of batteries. In sum, rather than simply sequentially charging one or more batteries at a number of ports limited by their total name-plate ratings, actively regulated charging is
25 done simultaneously for a larger group of batteries.

2. OBJECTION TO THE DRAWINGS

30 Applicants have amended FIG. 3A and 4 to comply with cited C.F.R. sections. No new matter has been added to the application with this amendment.

3. REJECTIONS IN PARAGRAPHS 4, 9 AND 10 OF THE OFFICE ACTION

Claims 1-4, 7-9, 14-15 and 20 were rejected under 35 U.S.C. § 102(e), as allegedly being anticipated by Smith, U.S. Patent Pub. 2002/0157931. Additionally, claims 5-6 and
5 10-15 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Smith, in view of Carson, U.S. Patent No. 6,842,668, and claims 16, 21 and 22 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Smith in view of Appleberg, U.S. Patent Pub. 2001/0040798.

10 a. Claims 1-6, 14, 16 and 20-22 Antedate Smith and Carson et al.

The patent publication to Smith was filed on April 27, 2001. The patent to Carson et al. was a divisional of an application filed on September 6, 2001.

15 The present application is a continuation-in-part of application Ser. No. 09/881,561 ("the Parent Application"), filed June 14, 2001, which claims the benefit of provisional application Ser. No. 60/212,066 ("the Provisional Application"), filed June 14, 2000. A copy of that provisional application is enclosed for the Examiner's convenience.

20 At least claims 1-6, 14, 16 and 20-22 claim subject matter fully supported in the Provisional Application and the Parent Application, and thus have a priority date prior to the filing date of Smith and Carson et al. For example, Applicants note the disclosure of the Provisional Application, page 8, line 13 to page 14, line 3.

25 As a result, claims 1-6, 14 16 and 20-22 have a priority date antedating Smith and Carson et al., which therefore are not proper references under 35 U.S.C. § 102(e) or 103(a) for those claims. Thus, the related rejections of claims 1-6, 14, 16 and 20-22 are not proper.

- b. The Subject Matter of Claims 1-4, 7-9, 14-15 and 20 and Is Not Described
in Smith

5 "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See*, M.P.E.P. § 706.02, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

10 As amended, claims 1-4, 7-9 and 14-15 are directed to a charging system for charging a plurality of batteries, and claim 20 is directed to an electric vehicle system. Smith fails to disclose a charging system for charging a plurality of batteries or an electric vehicle system. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claims 1-4, 7-9, 14-15 and 20.

15 Furthermore, claim 7 recites a second primary power port. Claim 8 depends from claim 7. The Office Action fails to identify any description of this element in Smith. Moreover, Smith fails to disclose this element. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claims 7 and 8.

20 Additionally, claim 8 recites that the first and second primary power ports are configured to receive power at a different power levels, and the controller is configured to manage the power received by the first and second primary power ports (the latter clause being added presently by amendment of the claims). The Office Action fails to identify any description of these elements in Smith. Moreover, Smith fails to disclose these
25 elements. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claim 8.

30 Additionally, claim 9 recites that the system controller is configured such that the designated power limit varies. Smith fails to disclose any system controller configured to vary a designated power limit. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claim 9.

Additionally, claim 15 has been amended to recite that the system controller is configured to operate the primary power port bidirectionally. Smith fails to identify any system controller configured to operate the primary power port bidirectionally. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claim 15.

c. All Elements of Claims 5, 6, 10-16, 21 and 22 Are Not Taught or Suggested in the Prior Art References

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must be found in the prior art and not based on an applicant's disclosure. (See, M.P.E.P. § 706.02(j)).

As amended, claims 5, 6 and 10-16 are directed to a charging system for charging a plurality of batteries, and claims 21 and 22 are directed to an electric vehicle system. Smith fails to teach or suggest a charging system for charging a plurality of batteries or an electric vehicle system. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claims 5, 6, 10-16, 21 and 22.

d. Claims 1-16 and 20-22 Are Not Anticipated or Obvious

Because the Smith and Carson et al. publications are not proper references under 35 U.S.C. § 102(e) for at least claims 1-6, 14, 16 and 20-22, and because the cited art fails to describe, teach or suggest the features of claims 1-16 and 20-22, as described above, the rejections of claims 1-16 and 20-22 under 35 U.S.C. § 102(e) and/or 103(a) are not proper. Applicants respectfully request these rejections be withdrawn.

4. REJECTIONS IN PARAGRAPHS 6, 11a AND 11b OF THE OFFICE ACTION

Claims 1-4, 6, 14-18, 20, 22 and 23 were rejected 35 U.S.C. § 102(b), as allegedly being anticipated by Gilbert. Additionally, claim 19 was rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Gilbert in view of Hunter, U.S. Patent No. 5,724,237, and claim 21 was rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Gilbert.

a. The Subject Matter of Claims 1-4, 6, 14-18, 20, 22 and 23 Is Not Described in Gilbert

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See*, M.P.E.P. § 706.02, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

As amended, claims 1-4, 6 and 14-18 are directed to a charging system for charging a plurality of batteries, and claims 20, 22 and 23 are directed to an electric vehicle system. Gilbert fails to disclose a charging system for charging a plurality of batteries or an electric vehicle system. Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claims 1-4, 6, 14-18, 20, 22 and 23.

b. All Elements of Claims 19 and 21 Are Not Taught or Suggested in the Prior Art References

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must be found in the prior art and not based on an applicant's disclosure. (See, M.P.E.P. § 706.02(j)).

As amended, claim 19 is directed to a charging system for charging a plurality of batteries, and claim 21 is directed to an electric vehicle system. Gilbert fails to disclose a charging system for charging a plurality of batteries or an electric vehicle system.

Therefore, the Office Action fails to establish a *prima facie* case of anticipation for the related rejection of claims 5, 6, 10-16, 21 and 22.

c. Claims 1-4, 6 and 14-23 Are Not Anticipated or Obvious

Because the cited art fails to describe, teach or suggest the features of claims 1-4, 6 and 14-23, as described above, the rejections of claims 1-4, 6 and 14-23 under 35 U.S.C. § 102(e) and/or 103(a) are not proper. Applicants respectfully request these rejections be withdrawn.

5. REJECTION IN PARAGRAPH 12 OF THE OFFICE ACTION

Claims 24-32 were rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Tseng, U.S. Patent No. 5,631,536, in view of McKenszie, U.S. Patent No. 6,003,139, and further in view of Henze, U.S. Patent No. 5,926,004.

a. All Elements of Claims 24-32 Are Not Taught or Suggested in the Prior Art References

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must be found in the prior art and not based on an applicant's disclosure. (See, M.P.E.P. § 706.02(j)).

As amended, independent claim 24 is directed to a charging system, including:

...

a system controller configured to control the power distribution between the utility port and the plurality of secondary power ports, wherein if the sum of the power ratings of the secondary power ports **used to charge the plurality of batteries** exceeds the maximum power level, the system controller controls the power distribution such that the plurality of

batteries are **simultaneously** charged using power from the utility at a power level not exceeding the maximum power level; ...

5 All of the cited references fail to disclose such a system controller. More particularly, they fail to disclose a controller that controls the power distributed by the secondary power ports in a fashion such that power can be dispensed through a group of enough secondary power to have the capacity to dispense power at a level above the maximum power level. Therefore, the Office Action does not establish a *prima facie* case of anticipation for the related rejection of claims 24-32.

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b. Claims 24-32 Are Not Obvious

Because the cited art fails to teach or suggest the features of claims 24-32, as described above, the rejection of claims 24-32 under 35 U.S.C. 103(a) is not proper.
15 Applicants respectfully request this rejection be withdrawn.

6. REQUEST FOR INTERVIEW

20 In light of Applicants' amendments and arguments, Applicants believe that the claims are now in condition for allowance. Nevertheless, if the Examiner believes that any claims could be subject to restriction or rejection, then Applicants request a telephonic interview to try and efficiently resolve all open issues.

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BUCHANAN et al.

By: _____

John A. Griecci

Registration No. 39,694

For: The Law Office of John A. Griecci

703 Pier Avenue, Suite B #657
Hermosa Beach, CA 90254
(310) 376-6527